AMENDMENTS TO THE CLAIMS

Claims 1-24 (Canceled)

Claim 25 (Previously presented): A method to treat a mammalian subject for a condition benefited by stimulating hair growth which method comprises administering to said mammalian subject in need of such treatment an effective amount of a compound that inhibits proteasomal activity.

Claim 26 (Canceled)

Claim 27 (Previously presented): The method of claim 25, wherein the compound inhibits the trypsin-like or PGPH activity of the proteasome.

Claims 28-44 (Canceled)

Claim 45 (Original): The method of claim 25, wherein the compound inhibits the chymotrypsin-like activity of the proteasome.

Claim 46 (Original): The method of claim 45, wherein the compound is a peptide having at least 3 amino acids and a C-terminal functional group that reacts with the threonine residue of the chymotrypsin-like catalytic site of the proteasome.

Claim 47 (Original): The method of claim 46, wherein the C-terminal functional group is selected from the group consisting of an epoxide, a $-B(OR)_2$ group, a $-S(OR)_2$ group and a -SOOR group, wherein R is H, an alkyl (C_{1-6}) or an aryl (C_{1-6}).

Claim 48 (Original): The method of claim 47, wherein the functional group is an epoxide that forms a morpholino ring with the threonine residue of the chymotrypsin-like catalytic site of the proteasome.

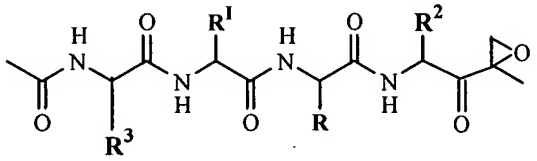
Claim 49 (Original): The method of claim 45, wherein the peptide is a peptide α', β'-epoxyketone.

Claim 50 (Original): The method of claim 49, wherein the peptide α', β'-epoxyketone has at least 4 amino acids.

Claim 51 (Original): The method of claim 49, wherein the c-terminus amino acid of the peptide α', β'-epoxyketone is a hydrophobic amino acid.

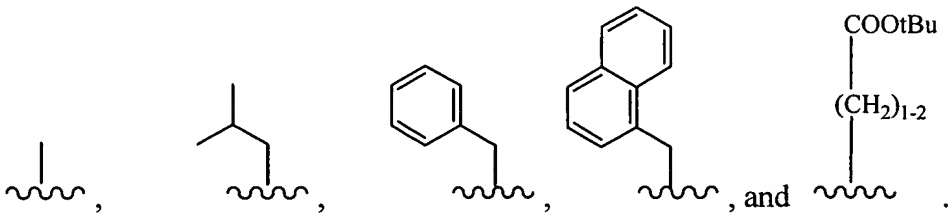
Claim 52 (Original): The method of claim 51, wherein the hydrophobic amino acid is leucine or phenylalanine.

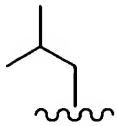
Claim 53 (Previously presented): The method of claim 49, wherein the peptide α', β'-epoxyketone has the following formula:

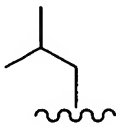
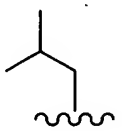


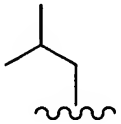
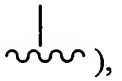
wherein each of R, R^1, R^2 and R^3 is a hydrophobic substituent.

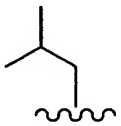
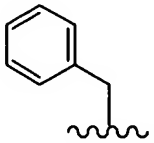
Claim 54 (Original): The method of claim 53, wherein each of R, R^1, R^2 and R^3 is independently selected from the group consisting of

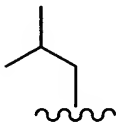
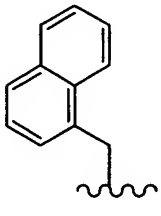


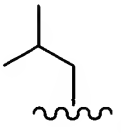
Claim 55 (Original): The method of claim 53, wherein R^2 and R^3 are  and the compound is selected from the group consisting of

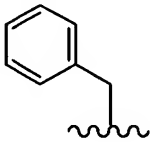
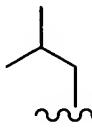
compound 1 (R^1=  and R= ),

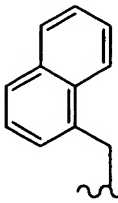
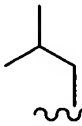
compound 2 (R^1=  and R= ),

compound 3 (R^1=  and R= ),

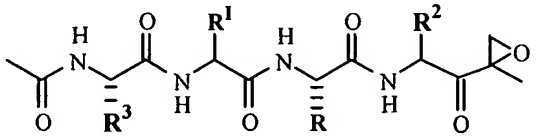
compound 4 (R^1=  and R= ),

compound 5 (R^1=  and R= ),

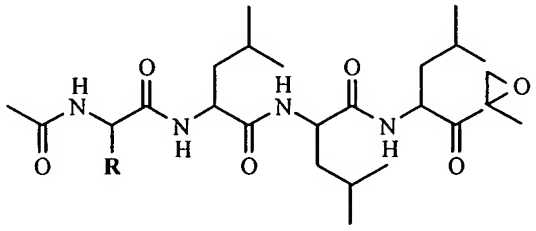
compound 6 (R^1=  and R= ) and

compound 7 (R^1=  and R= ).

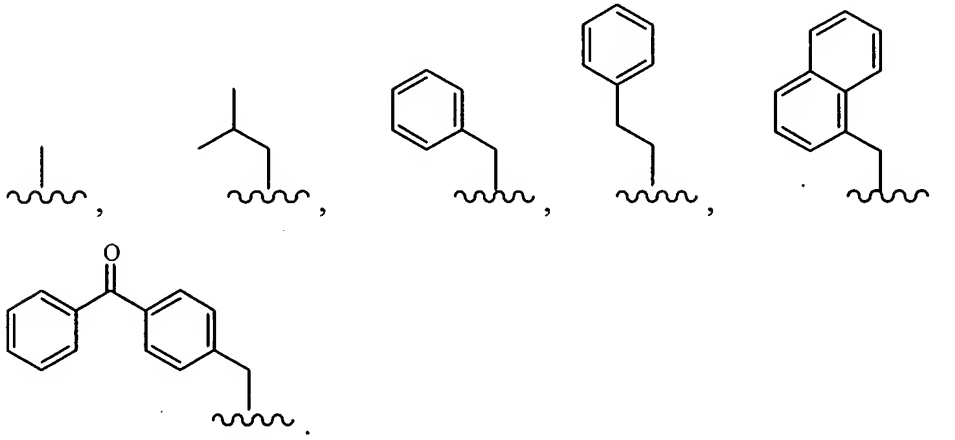
Claim 56 (Original): The method of claim 53, wherein the peptide α', β'-epoxyketone has the following stereo-configuration:



Claim 57 (Original): The method of claim 49, wherein the peptide α', β'-epoxyketone has the following formula:

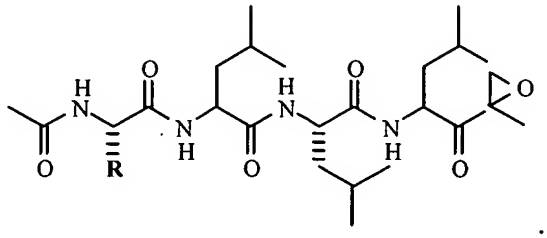


wherein R is selected from the group consisting of

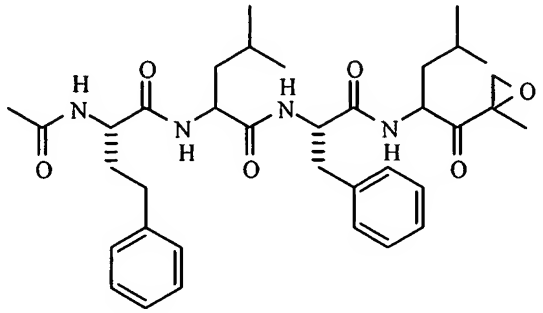


and

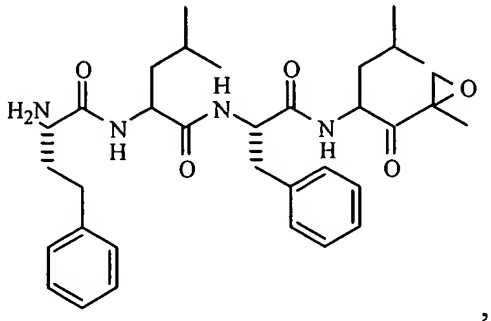
Claim 58 (Original): The method of claim 57, wherein the peptide α', β'-epoxyketone has the following stereo-configuration:



Claim 59 (Original): The method of claim 58, wherein the peptide α', β'-epoxyketone is

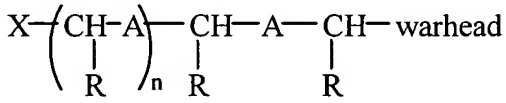


Claim 60 (Previously presented): The method of claim 45, wherein the compound is selected from the group consisting of



, pyrazylcarbonyl-Phe-Leu-Boronate (PS-341), tri-leucine vinyl sulfone (NLVS), N-carbobenzoyl-Ile-Glu-(OtBu)-Ala-Leu-CHO (PSI) epoxide, and lactacystin.

Claim 61 (Original): The method of claim 45, wherein the compound has the following formula:



wherein the warhead reacts irreversibly with the catalytic chymotrypsin site of the proteasome;

A is independently CO-NH or isostereomer thereof;

R is independently a hydrocarbyl;

X is a polar group; and

n = 0-2.

Claim 62 (Original): The method of claim 61, wherein R contains a substituted group selected from the group consisting of a halo group, -OR, -SR, $-NR_2$, =O, -COR, -OCOR, -NHCOR, $-NO_2$, -CN, and $-CF_3$.

Claim 63 (Original): The method of claim 61, wherein X is protected.

Claim 64 (Original): The method of claim 25, wherein said subject is a human.

Claim 65 (Original): The method of claim 25, wherein said condition to be treated is selected from the group consisting of male pattern baldness, alopecia caused by chemotherapy, hair thinning due to aging, and genetic disorders.

Claim 66 (Original): The method of claim 1, wherein said subject is a non-human mammal.

Claim 67 (Original): The method of claim 66, wherein said hair growth provides additional protection from cold temperatures.

Claim 68 (Original): The method of claim 25, wherein said hair growth is due to thickened hair sheath diameter, increased hair diameter, differentiation of quiescent hair follicles into more mature forms, increased rate of growth in hair length and/or thickness, or the appearance of proliferation of new hair follicles.

Claim 69 (Original): The method of claim 25, wherein said compound is co-administered with an agent promoting skin tissue growth or infiltration.

Claim 70 (Original): The method of claim 69, wherein said agent is selected from the group consisting of an epidermal growth factor, a fibroblast growth factor, a platelet-derived growth factor, a transforming growth factor, a parathyroid hormone, a leukemia inhibitory factor, and an insulin-like growth factor.

Claim 71 (Canceled)